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IN THE CLAIMS

- (original) A method for analyzing defects on a substrate, the method including the steps of:
 inspecting the substrate to detect the defects,
 identifying the defects by location,
 analyzing the defects to detect extended objects, and
- 2. (original) The method of claim 1, wherein the step of inspecting the substrate comprises an optical inspection.

analyzing the extended objects for repetition across the substrate.

- 3. (original) The method of claim 1, wherein the substrate is a monolithic semiconducting substrate having integrated circuitry thereon.
- 4. (original) The method of claim 1, wherein the substrate is a reticle.
- 5. (original) The method of claim 1, wherein the substrate is a mask.
- 6. (original) The method of claim 1, wherein the extended objects include at least one of clusters and signatures.
- 7. (original) The method of claim 1, wherein the step of analyzing the defects to detect extended objects includes specifying a bounding box size.
- 8. (original) The method of claim 1, wherein the step of analyzing the extended objects for repetition includes specifying a bounding box size.
- 9. (original) The method of claim 1, wherein the step of analyzing the extended objects for repetition includes specifying a bounding box orientation.
- 10. (original) The method of claim 1, wherein the step of analyzing the extended objects for repetition includes specifying a bounding box overlap.

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58843.US

- 11. (currently amended) A method for analyzing defects on a semiconductor substrate, the method including the steps of: optically inspecting the substrate to detect the defects, identifying the defects by location, analyzing the defects to detect extended objects, and analyzing the extended objects for repetition across the substrate.
- 12. (original) The method of claim 11, wherein the extended objects include at least one of clusters and signatures.
- 13. (original) The method of claim 11, wherein the step of analyzing the defects to detect extended objects includes specifying a bounding box size.
- 14. (original) The method of claim 11, wherein the step of analyzing the extended objects for repetition includes specifying a bounding box size.
- 15. (original) The method of claim 11, wherein the step of analyzing the extended objects for repetition includes specifying a bounding box orientation.
- 16. (original) The method of claim 11, wherein the step of analyzing the extended objects for repetition includes specifying a bounding box overlap.
- 17. (original) An apparatus for analyzing defects on a substrate, the apparatus comprising:
 - a sensor for inspecting the substrate,
- a stage for providing relative movement between the sensor and the substrate, and a controller for;
 - correlating defect information from the sensor and position information from the stage,
 - analyzing the correlated defect information and position information to detect extended objects, and
- analyzing the extended objects for repetition across the substrate.

58843.US

- 18. (original) The apparatus of claim 17 further comprising an input for receiving at least one of a bounding box size, a bounding box orientation, and a bounding box overlap as adjustable parameters for use in detecting and analyzing the extended objects for repetition.
- 19. (original) The apparatus of claim 17 wherein the substrate is at least one of a semiconductor substrate, a reticle, and a mask.
- 20. (original) The apparatus of claim 17 wherein the sensor is an optical sensor.